AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF THE CLAIMS:

1-18. (Canceled).

19-22. (Canceled).

23. (Previously Presented) The sensor as recited in claim 26, wherein the at least one heating electrode has a meandering shape.

24. (Canceled).

25. (Previously Presented) The sensor as recited in claim 26, wherein the at least one heating electrode has at least two areas of different cross sections.

26. (Previously Presented) A sensor for measuring the viscosity of a liquid, comprising:

at least one piezoelectric component configured as a resonator;

at least one first starting electrode situated on a sensitive surface of the sensor;

at least one second starting electrode; and

at least one heating electrode provided for heating the liquid to be measured,

wherein the at least one heating electrode is situated on or next to the sensitive surface of the sensor and is configured in one piece with the at least one first starting electrode,

wherein the at least one heating electrode spans a surface area of the sensor having a central area,

wherein the central area includes a center region, and the center region includes a center point,

wherein the surface area of the sensor has an approximately uniform temperature distribution in an operating temperature range,

wherein a resistance per unit of length of the at least one heating electrode varies for at least two areas of the at least one heating electrode, and

wherein the resistance per unit of length of the at least one heating electrode varies as a function of distance from one of the central area, the center region, or the center point.

27. (Previously Presented) A sensor for measuring the viscosity of a liquid, comprising:

at least one piezoelectric component configured as a resonator;

at least one first starting electrode situated on a sensitive surface of the sensor;

at least one second starting electrode; and

at least one heating electrode provided for heating the liquid to be measured,

wherein the at least one heating electrode is situated on or next to the sensitive surface of the sensor and is configured in one piece with the at least one first starting electrode,

wherein the at least one heating electrode spans a surface area of the sensor having a central area,

wherein the central area includes a center region, and the center region includes a center point,

wherein the surface area of the sensor has an approximately uniform temperature distribution in an operating temperature range,

wherein a resistance per unit of length of the at least one heating electrode varies for at least two areas of the at least one heating electrode, and

wherein the resistance per unit of length of the at least one heating electrode increases with distance from one of the central area, the center region, or the center point, toward an edge of the surface area of the sensor.

28. (Previously Presented) The sensor as recited in claim 26, further comprising:

a temperature measuring sensor.

29. (Previously Presented) The sensor as recited in claim 28, wherein the at least one heating electrode is incorporated in the temperature measuring sensor.

30. (Previously Presented) The sensor as recited in claim 26, wherein at least one of the at least one first starting electrode, the at least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.

31-35. (Canceled).

36. (Previously Presented) The sensor as recited in claim 27, wherein the at least one heating electrode has a meandering shape.

37. (Previously Presented) The sensor as recited in claim 27, wherein the at least one heating electrode has at least two areas of different cross sections.

38. (Previously Presented) The sensor as recited in claim 27, further comprising:

a temperature measuring sensor.

39. (Previously Presented) The sensor as recited in claim 27, wherein the at least one heating electrode is incorporated in the temperature measuring sensor.

40. (Previously Presented) The sensor as recited in claim 27, wherein at least one of the at least one first starting electrode, the at least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.

41. (Previously Presented) The sensor as recited in claim 27, further comprising:

a temperature measuring sensor, wherein the at least one heating electrode is incorporated in the temperature measuring sensor;

wherein the at least one heating electrode has a meandering shape, wherein the at least one heating electrode has at least two areas of different cross sections, wherein the at least one heating electrode is incorporated in the temperature measuring sensor, and wherein at least one of the at least one first starting electrode, the at least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.